SEQUENCE LISTING

<110> ADViSYS

<120> GROWTH HORMONE RELEASING HORMONE ("GHRH") TREATMENT DECREASES CULLING IN HERD ANIMALS

<130> 108328.00170 - AVSI-0033

<160> 30

<170> PatentIn version 3.1

<210> 1
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> This is the amino acid sequenc for HV-GHRH.

<400> 1

His Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 2
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> This is the amino acid sequenc for TI-GHRH.

<400> 2

Tyr Ile Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 3
<211> 40

<212> PRT
<213> artificial sequence

<220>
<223> This is the amino acid sequenc for TV-GHRH.

<400> 3

Tyr Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 4
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> This is the amino acid sequenc for 15/27/28-GHRH.

<400> 4

Tyr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 5
<211> 44
<212> PRT
<213> artificial sequence

<220>
<223> This is a consensus sequence for GHRH

<400> 5

Thr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Ser Arg Gln Gln Gly
20 25 30

Glu Ser Asn Gln Glu Arg Gly Ala Arg Ala Arg Leu
35 40

<210> 6
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> This is the artificial sequence for GHRH (1-40)OH.

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa at position 1 may be tyrosine, or histidine

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa at position 2 may be alanine, valine, or isoleucine.

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> Xaa at position 15 may be alanine, valine, or isoleucine.

<220>
<221> MISC_FEATURE
<222> (27)..(27)
<223> Xaa at position 27 may be methionine, or leucine.

<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa at position 28 may be serine or asparagine.

<220>
<221> MISC_FEATURE
<222> (34)..(34)
<223> ARG may also be SER

<220>
<221> MISC_FEATURE
<222> (38)..(38)
<223> Gln may also be Arg

<400> 6

Xaa Xaa Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Xaa Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Xaa Xaa Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 7
<211> 323
<212> DNA
<213> artificial sequence

<220>
<223> This is a nucleic acid sequence of a eukaryotic promoter c5-12.

<400> 7
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gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt tggcgctcta 120

aaaataactc ccgggagtta tttttagagc ggaggaatgg tggacaccca aatatggcga 180

cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg cattcctggg 240

ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg cggcccacga 300

gctacccgga ggagcgggag gcg 323

<210> 8
<211> 190
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a hGH poly A tail.

<400> 8
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gtgcccacca gccttgtcct aataaaatta agttgcatca ttttgtctga ctaggtgtcc 120

ttctataata ttatggggtg gaggggggtg gtatggagca aggggcaagt tgggaagaca 180

acctgtaggg 190

<210> 9
<211> 219
<212> DNA
<213> artificial sequence

<220>
<223> This is the cDNA for Porcine GHRH.

<400> 9

atggtgctct gggtgttctt ctttgtgatc ctcaccctca gcaacagctc ccactgctcc 60

ccacctcccc ctttgaccct caggatgcgg cggcacgtag atgccatctt caccaacagc 120

taccggaagg tgctggccca gctgtccgcc cgcaagctgc tccaggacat cctgaacagg 180

cagcagggag agaggaacca agagcaagga gcataatga 219

<210> 10
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> This is the amino acid sequence for porcine GHRH.

<400> 10

Tyr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Ser Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 11
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> This is the nucleic acid sequence for the operatively linked components of the HV-GHRH plasmid.

<400> 11
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accgcggtgg cggccgtccg ccctcggcac catcctcacg acacccaaat atggcgacgg 120

gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt 180

tggcgctcta aaaataactc ccgggagtta tttttagagc ggaggaatgg tggacaccca 240

aatatggcga cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg 300

cattcctggg ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg 360

cggcccacga gctacccgga ggagcgggag gcgccaagct ctagaactag tggatcccaa 420

ggcccaactc cccgaaccac tcagggtcct gtggacagct cacctagctg ccatggtgct 480

ctgggtgttc ttctttgtga tcctcaccct cagcaacagc tcccactgct ccccacctcc 540

ccctttgacc ctcaggatgc ggcggcacgt agatgccatc ttcaccaaca gctaccggaa 600

ggtgctggcc cagctgtccg cccgcaagct gctccaggac atcctgaaca ggcagcaggg 660

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acaaaaatcg acgctcaagt cagaggtggc gaaacccgac aggactataa agataccagg 1920

cgtttccccc tggaagctcc ctcgtgcgct ctcctgttcc gaccctgccg cttaccggat 1980

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agatccttgg cggcaagaaa gccatccagt ttactttgca gggcttccca accttaccag 3360

agggcgcccc agctggcaat tccggttcgc ttgctgtcca taaaaccgcc cagtctagca 3420

actgttggga agggcgatcg gtgcgggcct cttcgctatt acgccagctg gcgaaagggg 3480

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<210> 12
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for the TI-GHRH plasmid.

<400> 12
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accgcggtgg cggccgtccg ccctcggcac catcctcacg acacccaaat atggcgacgg 120

gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt 180

tggcgctcta aaaataactc ccgggagtta tttttagagc ggaggaatgg tggacaccca 240

aatatggcga cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg 300

cattcctggg ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg 360

cggcccacga gctacccgga ggagcgggag gcgccaagct ctagaactag tggatcccaa 420

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ctgggtgttc ttctttgtga tcctcaccct cagcaacagc tcccactgct ccccacctcc 540

ccctttgacc ctcaggatgc ggcggtatat cgatgccatc ttcaccaaca gctaccggaa 600

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<210> 13
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for the TV-GHRH plasmid.

<400> 13
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aatatggcga cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg 300

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agggcgcccc agctggcaat tccggttcgc ttgctgtcca taaaaccgcc cagtctagca 3420

actgttggga agggcgatcg gtgcgggcct cttcgctatt acgccagctg gcgaaagggg 3480

gatgtgctgc aaggcgatta agttgggtaa cgccagggtt ttcccagtca cgac 3534

<210> 14
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for the 15/27/28 GHRH plasmid.

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gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt 180

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cattcctggg ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg 360

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ccctttgacc ctcaggatgc ggcggtatat cgatgccatc ttcaccaaca gctaccggaa 600

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actgttggga agggcgatcg gtgcgggcct cttcgctatt acgccagctg gcgaaagggg 3480

gatgtgctgc aaggcgatta agttgggtaa cgccagggtt ttcccagtca cgac 3534

<210> 15
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid sequence for wildtype GHRH.

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gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt 180

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actgttggga agggcgatcg gtgcgggcct cttcgctatt acgccagctg gcgaaagggg 3480

gatgtgctgc aaggcgatta agttgggtaa cgccagggtt ttcccagtca cgac 3534

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<211> 4260
<212> DNA
<213> Artificial sequence

<220>
<223> Sequence for the pSP-SEAP cDNA construct.

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aaataactcc cgggagttat ttttagagcg gaggaatggt ggacacccaa atatggcgac 180

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<211> 2710

<212> DNA
<213> artificial sequence

<220>
<223> Codon optimized ("GHRH") sequence for mouse.

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cggtgtaggt cgttcgctcc aagctgggct gtgtgcacga acccccgtt cagcccgacc 1380

gctgcgcctt atccggtaac tatcgtcttg agtccaaccc ggtaagacac gacttatcgc 1440

cactggcagc agccactggt aacaggatta gcagagcgag gtatgtaggc ggtgctacag 1500

agttcttgaa gtggtggcct aactacggct acactagaag aacagtattt ggtatctgcg 1560

ctctgctgaa gccagttacc ttcggaaaaa gagttggtag ctcttgatcc ggcaaacaaa 1620

ccaccgctgg tagcggtggt ttttttgttt gcaagcagca gattacgcgc agaaaaaaag 1680

gatctcaaga agatcctttg atcttttcta cggggctagc gcttagaaga actcatccag 1740

cagacggtag aatgcaatac gttgagagtc tggagctgca ataccataca gaaccaggaa 1800

acggtcagcc cattcaccac ccagttcctc tgcaatgtca cgggtagcca gtgcaatgtc 1860

ctggtaacgg tctgcaacac ccagacgacc acagtcaatg aaaccagaga aacgaccatt 1920

ctcaaccatg atgttcggca ggcatgcatc accatgagta actaccaggt cctcaccatc 1980

cggcatacga gctttcagac gtgcaaacag ttcagccggt gccagaccct gatgttcctc 2040

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aaacgatcct catcctgtct cttgatcaga tcttgatccc ctgcgccatc agatccttgg 2580

cggcaagaaa gccatccagt ttactttgca gggcttccca accttaccag agggcgcccc 2640

agctggcaat tccggttcgc ttgctgtcca taaaaccgcc cagtctagca actgttggga 2700

agggcgatcg 2710

<210> 18
<211> 2713
<212> DNA
<213> artificial sequence

<220>
<223> Codon optimized ("GHRH") sequence for rat.

<400> 18
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cggcaccatc ctcacgacac ccaaatatgg cgacgggtga ggaatggtgg ggagttattt 120

ttagagcggt gaggaaggtg ggcaggcagc aggtgttggc gctctaaaaa taactcccgg 180

gagttatttt tagagcggag gaatggtgga cacccaaata tggcgacggt tcctcacccg 240

tcgccatatt tgggtgtccg ccctcggccg gggccgcatt cctgggggcc gggcggtgct 300

cccgcccgcc tcgataaaag gctccggggc cggcggcggc ccacgagcta cccggaggag 360

cgggaggcgc caagcggatc ccaaggccca actccccgaa ccactcaggg tcctgtggac 420

agctcaccta gctgccatgg ccctgtgggt gttcttcgtg ctgctgaccc tgaccagcgg 480

aagccactgc agcctgcctc ccagccctcc cttcagggtg cgccggcacg ccgacgccat 540

cttcaccagc agctacagga ggatcctggg ccagctgtac gctaggaagc tcctgcacga 600

gatcatgaac aggcagcagg gcgagaggaa ccaggagcag aggagcaggt tcaactgata 660

agcttatcgg ggtggcatcc ctgtgacccc tccccagtgc ctctcctggc cctggaagtt 720

gccactccag tgcccaccag ccttgtccta ataaaattaa gttgcatcat tttgtctgac 780

taggtgtcct tctataatat tatggggtgg aggggggtgg tatggagcaa ggggcaagtt 840

gggaagacaa cctgtagggc tcgaggggggg gcccggtacc agcttttgtt ccctttagtg 900

agggttaatt tcgagcttgg tcttccgctt cctcgctcac tgactcgctg cgctcggtcg 960

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cccctggaag ctccctcgtg cgctctcctg ttccgaccct gccgcttacc ggatacctgt 1260

ccgcctttct cccttcggga agcgtggcgc tttctcatag ctcacgctgt aggtatctca 1320

gttcggtgta ggtcgttcgc tccaagctgg gctgtgtgca cgaaccccc gttcagcccg 1380

accgctgcgc cttatccggt aactatcgtc ttgagtccaa cccggtaaga cacgacttat 1440

cgccactggc agcagccact ggtaacagga ttagcagagc gaggtatgta ggcggtgcta 1500

cagagttctt gaagtggtgg cctaactacg gctacactag aagaacagta tttggtatct 1560

gcgctctgct gaagccagtt accttcggaa aaagagttgg tagctcttga tccggcaaac 1620

aaaccaccgc tggtagcggt ggtttttttg tttgcaagca gcagattacg cgcagaaaaa 1680

aaggatctca agaagatcct ttgatctttt ctacggggct agcgcttaga agaactcatc 1740

cagcagacgg tagaatgcaa tacgttgaga gtctggagct gcaataccat acagaaccag 1800

gaaacggtca gcccattcac cacccagttc ctctgcaatg tcacgggtag ccagtgcaat 1860

gtcctggtaa cggtctgcaa cacccagacg accacagtca atgaaaccag agaaacgacc 1920

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cattgcatca gccatgatag aaactttctc tgccggagcc aggtgagaag acagcaggtc 2220

ctgacccgga acttcaccca gcagcagcca gtcacgacca gcttcagtaa ctacatccag 2280

aactgcagca cacggaacac cagtggttgc cagccaagac agacgagctg cttcatcctg 2340

cagttcattc agagcaccag acaggtcagt tttaacaaac agaactggac gaccctgtgc 2400

agacagacgg aaaacagctg catcagagca accaatggtc tgctgtgccc agtcataacc 2460

aaacagacgt tcaacccagg ctgccggaga acctgcatgc agaccatcct gttcaatcat 2520

gcgaaacgat cctcatcctg tctcttgatc agatcttgat cccctgcgcc atcagatcct 2580

tggcggcaag aaagccatcc agtttacttt gcagggcttc ccaaccttac cagagggcgc 2640

cccagctggc aattccggtt cgcttgctgt ccataaaacc gcccagtcta gcaactgttg 2700

ggaagggcga tcg 2713

<210> 19
<211> 2716
<212> DNA
<213> artificial sequence

<220>
<223> Codon optimized ("GHRH") sequence for bovine.

<400> 19
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gggtgaggaa tggtggggag ttatttttag agcggtgagg aaggtgggca ggcagcaggt 120

gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

ggcggcccac gagctacccg gaggagcggg aggcgccaag cggatcccaa ggcccaactc 360

cccgaaccac tcagggtcct gtggacagct cacctagctg ccatggtgct gtgggtgttc 420

ttcctggtga ccctgaccct gagcagcgga agccacggca gcctgcccag ccagcccctg 480

aggatcccta ggtacgccga cgccatcttc accaacagct acaggaagat cctgggccag 540

ctgagcgcta ggaagctcct gcaggacatc atgaacaggc agcagggcga gaggaaccag 600

gagcagggcg cctgataagc ttatcggggt ggcatccctg tgacccctcc ccagtgcctc 660

tcctggccct ggaagttgcc actccagtgc ccaccagcct tgtcctaata aaattaagtt 720

gcatcatttt gtctgactag gtgtccttct ataatattat ggggtggagg ggggtggtat 780

ggagcaaggg gcaagttggg aagacaacct gtagggctcg agggggggcc cggtaccagc 840

ttttgttccc tttagtgagg gttaatttcg agcttggtct tccgcttcct cgctcactga 900

ctcgctgcgc tcggtcgttc ggctgcggcg agcggtatca gctcactcaa aggcggtaat 960

acggttatcc acagaatcag gggataacgc aggaaagaac atgtgagcaa aaggccagca 1020

aaaggccagg aaccgtaaaa aggccgcgtt gctggcgttt ttccataggc tccgcccccc 1080

tgacgagcat cacaaaaatc gacgctcaag tcagaggtgg cgaaacccga caggactata 1140

aagataccag gcgtttcccc ctggaagctc cctcgtgcgc tctcctgttc cgaccctgcc 1200

gcttaccgga tacctgtccg cctttctccc ttcgggaagc gtggcgcttt ctcatagctc 1260

acgctgtagg tatctcagtt cggtgtaggt cgttcgctcc aagctgggct gtgtgcacga 1320

acccccgtt cagcccgacc gctgcgcctt atccggtaac tatcgtcttg agtccaaccc 1380

ggtaagacac gacttatcgc cactggcagc agccactggt aacaggatta gcagagcgag 1440

gtatgtaggc ggtgctacag agttcttgaa gtggtggcct aactacggct acactagaag 1500

aacagtattt ggtatctgcg ctctgctgaa gccagttacc ttcggaaaaa gagttggtag 1560

ctcttgatcc gacaaacaaa ccaccgctgg tagcggtggt ttttttgttt gcaagcagca 1620

gattacgcgc agaaaaaaag gatctcaaga agatcctttg atcttttcta cggggtctga 1680

cgctcagcta gcgctcagaa gaactcgtca agaaggcgat agaaggcgat gcgctgcgaa 1740

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tcagcaatat cacgggtagc caacgctatg tcctgatagc ggtccgccac acccagccgg 1860

ccacagtcga tgaatccaga aaagcggcca ttttccacca tgatattcgg caagcaggca 1920

tcgccatgag tcacgacgag atcctcgccg tcgggcatgc gcgccttgag cctggcgaac 1980

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gtagccggat caagcgtatg cagccgccgc attgcatcag ccatgatgga tactttctcg 2160

gcaggagcaa ggtgagatga caggagatcc tgccccggca cttcgcccaa tagcagccag 2220

tcccttcccg cttcagtgac aacgtcgagc acagctgcgc aaggaacgcc cgtcgtggcc 2280

agccacgata gccgcgctgc ctcgtcctgc agttcattca gggcaccgga caggtcggtc 2340

ttgacaaaaa gaaccgggcg cccctgcgct gacagccgga acacggcggc atcagagcag 2400

ccgattgtct gttgtgccca gtcatagccg aatagcctct ccacccaagc ggccggagaa 2460

cctgcgtgca atccatcttg ttcaatcatg cgaaacgatc ctcatcctgt ctcttgatca 2520

gatcttgatc ccctgcgcca tcagatcctt ggcggcaaga aagccatcca gtttactttg 2580

cagggcttcc caaccttacc agagggcgcc ccagctggca attccggttc gcttgctgtc 2640

cataaaaccg cccagtctag caactgttgg gaagggcgat cgtgtaatac gactcactat 2700

agggcgaatt ggagct 2716

<210> 20
<211> 2716
<212> DNA
<213> artificial sequence

<220>
<223> TCodon optimized ("GHRH") sequence for ovine.

<400> 20
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gggtgaggaa tggtggggag ttatttttag agcggtgagg aaggtgggca ggcagcaggt 120

gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

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ttcctggtga ccctgaccct gagcagcgga agccacggca gcctgcccag ccagcccctg 480

aggatcccta ggtacgccga cgccatcttc accaacagct acaggaagat cctgggccag 540

ctgagcgcta ggaagctcct gcaggacatc atgaacaggc agcagggcga gaggaaccag 600

gagcagggcg cctgataagc ttatcggggt ggcatccctg tgacccctcc ccagtgcctc 660

tcctggccct ggaagttgcc actccagtgc ccaccagcct tgtcctaata aaattaagtt 720

gcatcatttt gtctgactag gtgtccttct ataatattat ggggtggagg ggggtggtat 780

ggagcaaggg gcaagttggg aagacaacct gtagggctcg agggggggcc cggtaccagc 840

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ctcgctgcgc tcggtcgttc ggctgcggcg agcggtatca gctcactcaa aggcggtaat 960

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aagataccag gcgtttcccc ctggaagctc cctcgtgcgc tctcctgttc cgaccctgcc 1200

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aacagtattt ggtatctgcg ctctgctgaa gccagttacc ttcggaaaaa gagttggtag 1560

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ccacagtcga tgaatccaga aaagcggcca ttttccacca tgatattcgg caagcaggca 1920

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cctgcgtgca atccatcttg ttcaatcatg cgaaacgatc ctcatcctgt ctcttgatca 2520

gatcttgatc ccctgcgcca tcagatcctt ggcggcaaga aagccatcca gtttactttg 2580

cagggcttcc caaccttacc agagggcgcc ccagctggca attccggttc gcttgctgtc 2640

cataaaaccg cccagtctag caactgttgg gaagggcgat cgtgtaatac gactcactat 2700

agggcgaatt ggagct 2716

<210> 21
<211> 2713
<212> DNA
<213> artificial sequence

<220>
<223> Codon optimized ("GHRH") sequence forchicken.

<400> 21
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ttagagcggt gaggaaggtg ggcaggcagc aggtgttggc gctctaaaaa taactcccgg 180

gagttatttt tagagcggag gaatggtgga cacccaaata tggcgacggt tcctcacccg 240

tcgccatatt tgggtgtccg ccctcggccg gggccgcatt cctgggggcc gggcggtgct 300

cccgcccgcc tcgataaaag gctccggggc cggcggcggc ccacgagcta cccggaggag 360

cgggaggcgc caagcggatc ccaaggccca actccccgaa ccactcaggg tcctgtggac 420

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cttcagcaag gcctaccgca agctcctggg ccagctgagc gcacgcaact acctgcacag 600

cctgatggcc aagcgcgtgg gcagcggact gggagacgag gccgagcccc tgagctgata 660

agcttatcgg ggtggcatcc ctgtgacccc tccccagtgc ctctcctggc cctggaagtt 720

gccactccag tgcccaccag ccttgtccta ataaaattaa gttgcatcat tttgtctgac 780

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cccctggaag ctccctcgtg cgctctcctg ttccgaccct gccgcttacc ggatacctgt 1260

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accgctgcgc cttatccggt aactatcgtc ttgagtccaa cccggtaaga cacgacttat 1440

cgccactggc agcagccact ggtaacagga ttagcagagc gaggtatgta ggcggtgcta 1500

cagagttctt gaagtggtgg cctaactacg gctacactag aagaacagta tttggtatct 1560

gcgctctgct gaagccagtt accttcggaa aaagagttgg tagctcttga tccggcaaac 1620

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aaggatctca agaagatcct ttgatctttt ctacggggct agcgcttaga agaactcatc 1740

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gaaacggtca gcccattcac cacccagttc ctctgcaatg tcacgggtag ccagtgcaat 1860

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aactgcagca cacggaacac cagtggttgc cagccaagac agacgagctg cttcatcctg 2340

cagttcattc agagcaccag acaggtcagt tttaacaaac agaactggac gaccctgtgc 2400

agacagacgg aaaacagctg catcagagca accaatggtc tgctgtgccc agtcataacc 2460

aaacagacgt tcaacccagg ctgccggaga acctgcatgc agaccatcct gttcaatcat 2520

gcgaaacgat cctcatcctg tctcttgatc agatcttgat cccctgcgcc atcagatcct 2580

tggcggcaag aaagccatcc agtttacttt gcagggcttc ccaaccttac cagagggcgc 2640

cccagctggc aattccggtt cgcttgctgt ccataaaacc gcccagtcta gcaactgttg 2700

ggaagggcga tcg 2713

<210> 22
<211> 55
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for 5' UTR of hGH.

<400> 22
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<210> 23
<211> 782
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a plasmid pUC-18 origin of replicaition

<400> 23
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tcagctcact caaaggcggt aatacggtta tccacagaat caggggataa cgcaggaaag 120

aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180

tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240

tggcgaaacc cgacaggact ataaagatac caggcgtttc cccctggaag ctccctcgtg 300

cgctctcctg ttccgaccct gccgcttacc ggatacctgt ccgcctttct cccttcggga 360

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aactatcgtc ttgagtccaa cccggtaaga cacgacttat cgccactggc agcagccact 540

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cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660

accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720

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tt 782

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<211> 5
<212> DNA
<213> artificial sequence

<220>
<223> This is a NEO ribosomal binding site

<400> 24
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<210> 25
<211> 29
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a prokaryotic PNEO promoter.

<400> 25
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<210> 26
<211> 3558
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for the inducible pGR1774 with human GHRH

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<220>
<223> Sequence for the muscle-specific GeneSwitch - pGS1633

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<223> Codon optimized plasmid for porcine GHRH.

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<223> Codon optimized plasmid for GHRH expression.

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